

facilities and infrastructure review. Secondly, sub-areas shall be selected using factors such as: areas containing the greatest amount of population, areas with established development (residential, infrastructure, etc.), and geographic boundaries. Priority for the creation of sector plans shall be given to corridors or subareas that have the most immediate and direct impact on the health, safety, and welfare of residents. Thirdly, within each sub-area, appropriate zones for designated activity shall be established. For example, certain areas could be designated solely as commercial zones. Another option to maintain rural character of the area would be to select zones along North Highway 14 and Interstate 40 that could serve as transitions from commercial nodes to residential areas. These zones could include residential and neighborhood scale businesses. Zones would require appropriate setbacks, performance standards and development guidelines (shared access, signage and landscaping requirements).

Natural Environment

The natural environment in the East Mountain Area is vulnerable to degradation due to the area's unique combination of steep slopes, shallow soils, fractured bedrock, dependence upon ground water, scenic beauty, and the lack of urban water and sewer facilities systems. Increased development makes demands on these resources and impacts the unique conditions. Analyses of these conditions prior to development can provide Bernalillo County with information on the appropriateness of the proposed development.

This document strives to promote, as an overarching goal, the preservation of the natural environment to maintain rural character, protect the watershed, control erosion, facilitate drainage, reduce air pollution, and conserve the viewshed.

WATER & WASTE WATER – 3

Water is one of the most valuable natural resources for the East Mountain Area. At present, almost all of the domestic, commercial, and agricultural water used in the East Mountain Area comes from groundwater, whether native to the basin or imported from surrounding areas via community water systems. In order to ensure that this groundwater is available for use in the future, measures must be taken to protect this valuable resource. The proliferation of inadequate individual waste water systems in areas having steep slopes, shallow soils, and fractured bedrock have already polluted groundwater in some portions of the East Mountain Area, and have created growing concerns about public health.

GOALS

- Maintain a dependable, quality water supply for the area.
- Minimize the potential for ground water pollution.

OBJECTIVES

- Conserve and enhance existing watershed areas.
- Provide greater emphasis on a total system approach to water resource management, recognizing the interrelationship between watershed quality, precipitation, recharge, stormwater runoff, consumptive use, and septic tank effluent.
- Encourage maximum absorption of rainfall through the preservation of natural arroyos and the design of drainage facilities and properly engineered, designed and constructed conservation devices in all new developments.
- Encourage water harvesting and recharge/injection wells that meet state and EPA criteria to provide for aquifer recharge.
- Minimize public health threats and water quality degradation resulting from on-site waste water disposal systems
- Encourage conservation, alternative technologies, and reuse/reclamation to reduce the potential for groundwater contamination and depletion.
- Encourage the use of alternative methods for collection, treatment, and disposal of waste water effluent and residuals to reduce the potential for groundwater contamination.
- Require the use of appropriate technologies for on-site waste water processing for private and community systems where feasible.
- Monitor existing water wells in the East Mountain Area for contamination, and strictly enforce sewage/waste water disposal requirements to protect water quality.
- Revise the permit fees to fund an adequate inspection and enforcement, and remediation program for waste water disposal systems.
- Bernalillo County Office of Environmental Health shall promote education of East Mountain Area residents on water conservation, contamination, and alternative technologies for water usage and waste water disposal, solid waste disposal, and recycling.

POLICIES

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| <p>3.1 Bernalillo County shall update ordinances governing the approval and construction of individual and community waste water systems and discharge plans that meet the most current New Mexico Environment Department regulations.</p> <p>3.2 Bernalillo Country shall require that for new developments of 25 dwelling units or more, developers must provide connection to a centralized water system meeting all state sanitation requirements.</p> <p>3.3 Bernalillo County shall require that for new developments of 25 dwelling units or more, developers and builders must provide either:</p> <p style="padding-left: 20px;">-connection to a regulated sewer system;</p> | |
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- centralized collection and treatment of waste water (including nitrogen removal);
 - approved alternative on-site non-discharging systems; or
 - conventional systems that meet the requirements specified in the Bernalillo County Waste Water Ordinance 2000-7, *and* an acceptable hydrogeologic, soils, and slope report.
- 3.4 Any new subdivision in the East Mountain Area may be required to study the effects of the development upon the groundwater supply.
- 3.5 Bernalillo County shall actively seek grants, loans, Federal and State special appropriations, and provide other funding sources to assist in the construction and customer connection and utilization of community water and waste water systems in conformance with approved area plans, and seek to establish public/private and intergovernmental agreements for continued operation, maintenance and administration of any publicly funded community water or waste water systems.
- 3.6 In all areas determined by an on-site soil evaluation approved by Bernalillo County Office of Environmental Health as having moderate or severe restrictions on the development of waste water drain fields, whether for new building permits or subdivisions, the drain fields must meet minimum county and state standards. In those soils where drain fields are not recommended, an alternative system, which can be demonstrated to mitigate the adverse impacts of discharging sewage to the environment, must be provided.
- 3.7 Bernalillo County Public Works Division shall prepare a Waste water Service Options Study for the East Mountain Area to include:
- A water and waste water infrastructure study
 - Evaluation of waste water treatment options for the major subdivisions and population centers in the East Mountain Area.
 - Comparison of the costs and benefits of all waste water treatment options as they pertain to specific development areas.
 - Exploration of financing and management techniques for the various options.
- 3.8 Bernalillo County shall pursue the establishment of an incentive program (revolving loan fund, matching funds, grants) to promote the upgrade of existing septic systems to non-polluting alternatives in areas experiencing problems with septic tank effluent (groundwater pollution, well contamination, or public health hazard).
- 3.9 Bernalillo County Office of Environmental Health shall update the existing informational booklet on residential on-site waste water systems.

VISUAL RESOURCES – 4

The dynamic mountainous landscape of the East Mountain Area provides many prominent views that are highly valued by residents and tourists alike and serve to enhance the rural character. Future development shall preserve views of the mountains and valleys of the East Mountain Area in order to retain the sense of identity and rural character that mountains, hills and valleys impart to the region. Natural features shall dominate the rural landscape, while artificial features shall not be visible from roadways. Projects that retain most of the vegetation and distinctive features (such as hilltops, outcroppings and meadows) are not only visually attractive, but also ecologically sound and increase the real estate value and shall be given a favorable consideration for approval.

A viewshed starts at the transition between the development of a road or a village and the surrounding landscape. To determine the extent of the viewshed, important vantage points and significant features in a village shall be identified. Foreground, middle ground, and background views should be assessed, and sensitivity (or relative importance) of each view classified. Effects on views should become an integral part of the evaluation of proposed future developments in the East Mountain Area. Current light ordinances should be uniformly enforced in commercial and residential areas. Information about dark skies should be provided to local residents and businesses.

GOALS

- Maintain and improve the existing visual quality of the East Mountain Area.

OBJECTIVES

- Recognize the natural and visual environment, particularly features unique to the East Mountain Area as a significant determination in development decisions.
- Encourage the careful siting of incidental structures such as signs, guywires, poles, fireplugs, street furniture, and overhead utility lines, which are sources of visual intrusion and impediments to the mobility of pedestrians, bicyclists, and equestrians.
- Encourage landscaping within public and private right-of-way to control water erosion and dust, and create a pleasing visual environment; native or naturalized low-water use vegetation shall be used where possible.
- Preserve areas not necessary for alteration through development on a site, or improve them to be compatible with both the new construction and the surrounding landscape.
- Encourage preservation of natural topographic features such as canyons arroyos, streams, slopes, springs, ridge lines and open meadows.

- Avoid siting of buildings on ridgetops or in the middle of meadows whenever possible to preserve the integrity of the rural views in the area.
- Construct roads along natural contours whenever possible and avoid or minimize cutting and grading.
- Encourage imaginative and innovative building techniques to create buildings suited to natural hillside surroundings, using colors and textures of building materials that are in harmony with the natural surroundings.

POLICIES

- 4.1 In order to minimize environmental and visual damage from new buildings in the East Mountain Area, Bernalillo County Zoning, Building and Planning shall require that all subdivision applications and building site plans include the following:
- Topography designating areas between 15% and 25% slope and over 25% slope, and ridgetops
 - Existing generalized vegetation
 - Existing floodplains/arroyos, wetlands, and riparian areas
 - Existing roads and/or trails
 - Cleared and graded areas not to exceed minimum required for roadways, home, accessory building, waste water treatment, animal husbandry (where allowed by zoning) and driveway construction.
 - Measures taken to prevent spread of non-native invasive plants found on building sites to other areas through equipment contamination.
- 4.2 Bernalillo shall encourage the use of native plant materials and xeriscape low water use principles within the East Mountain Area.

AIR, LIGHT, NOISE POLLUTION – 5

While the East Mountain Area currently enjoys clean air, dark skies, and limited noise pollution, it is important to realize that as the population and associated activities increase, it will be necessary to guide land use and community development toward strategies and solutions that are respectful of these aspects of the environment.

GOALS

- Safeguard public health and enhance the quality of life by enforcing Lighting, Noise, and Air Pollution ordinances.
- Improve air quality to safeguard public health and enhance the quality of life.

- Prevent new land use/noise conflicts to protect the public health and welfare, and enhance the quality of life.
- Maintain and improve the existing visual quality of the East Mountain Area.

OBJECTIVES

- Protect air quality by providing a balanced circulation system that encourages mass transit use through the I-40 corridor and other alternative means of transportation while providing sufficient roadway capacity to meet mobility and access needs.
- Integrate noise mitigation into the land-use planning process.
- Develop strategies to minimize adverse noise effects on noise-sensitive land uses near existing noise sources (such as, Interstate 40 and the Ideal Cement Plant).

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| 5.1 | Bernalillo County shall integrate air quality considerations into zoning and land use decisions to prevent air quality/land use conflicts. |
| 5.2 | Bernalillo County shall require new buildings in the East Mountain Area to have low-emissions fireplaces and wood-burning stoves. |

WILDLIFE – 6

One precaution that can be taken during development design is to designate wildlife corridors through developments, so animals can take non-intrusive paths through human areas to and from water and food sources. These can double as drainage arroyos, perhaps even as enhancements to roadsides when coupled with corridors beneath roads and fences constructed where possible. The New Mexico Department of Game and Fish and the New Mexico Department of Transportation in association with the Wildlands Project are developing wildlife corridors across the highways. Wildlife “culverts” beneath roadways would be appropriate in many areas where the aforementioned effort is underway. Critical area protection, designation of open space contiguous to existing public lands, and wildlife corridors should be encouraged.

Landscaping with native vegetation can limit dangerous wildlife/human interactions. Residents should avoid planting non-native species, fruit trees, and berry bushes in order to minimize attracting wildlife to predominately human occupied areas.

GOAL

- Strive to maintain wildlife habitats and create new habitats where wildlife would otherwise be displaced.

OBJECTIVE

- Create and protect natural habitats so animals can take non-intrusive paths through human areas to and from water and food sources.

POLICIES

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| 6.1 | Bernalillo County shall encourage the establishment of wildlife corridors to increase the safety of residents and preserve the natural habitat for wildlife. |
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SOILS, VEGETATION, AND TOPOGRAPHY – 7

Steep slopes, limited vegetation and soil restrictions predominate the East Mountain Area landscape. These features present limitations to development and must be recognized so as to minimize environmental degradation.

GOAL

- Protect slopes and native vegetation through control of non-native invasive plants.

OBJECTIVE

- Take measures to prevent introduction and spread of non-native invasive plants that currently are located on the site and/or could be introduced by contaminated construction equipment.
- Implement re-vegetation with native species on sites that are disturbed by development.

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| <p>7.1 Future trail locations shall be placed at an elevation that is above the water surface during a 100-year storm event.</p> <p>7.2 All development shall comply with the Federal Stormwater Quality regulations promulgated by the US Environmental Protection Agency and as administered by Bernalillo County, the City of Albuquerque, or any other local governmental entities.</p> <p>7.3 Usage of road curbing will not be permitted unless it is incorporated in a complete storm drainage system.</p> <p>7.4 Bernalillo County Office of Environmental Health shall provide information to assist citizens in identification of non-native invasive plants , measures which can be taken to prevent introduction and spread of these species, and various methods of control and their respective cost and effectiveness.</p> <p>7.5 Bernalillo County shall require that all cut and fill slopes associated with development in the East Mountain Area be re-vegetated with natural plant materials and/or rip-rapped with natural stone to blend with the natural setting. The subdivision ordinance shall be amended to require that major developers must provide a performance bond to provide for this revegetation.</p> <p>7.6 Bernalillo County shall encourage the development of individual conservation plans for properties of 10 or more acres in cooperation with the Ciudad Soil and Water Conservation District.</p> |
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POSSIBLE TECHNIQUES

Water And Waste Water Systems

Bernalillo County shall update ordinances governing water and wastewater issues to be consistent with New Mexico Environment Department regulations.

Bernalillo County shall prepare and adopt a Waste water Services Option Plan for the East Mountain.

Bernalillo County Public Works Division shall prepare an overall drainage management plan for the entire East Mountain Area.

Bernalillo County shall provide the public with educational information about conventional and alternative water and waste water system.

Bernalillo County Office of Environmental Health shall continue tracking the number of permits and waste water systems installed.

Contractors shall install desiltation ponds downgradient from residential areas. Sheet flow from medians and roadside/parking lot plantings can be directed to drainage swales towards ponding areas, which can also serve as a small native vegetation park.

Visual Impact Analysis

Bernalillo County shall conduct a visual resource analysis that would inventory and evaluate the visual resources within the area. Following the analysis, a visual resource management rating should be assigned to lands that could potentially be impacted by development. This rating would indicate the varying need of preservation, and should be updated every 5 years. The visual resource management rating would aim to influence the design and scale of structures to be compatible with the surrounding community.

The Bernalillo County Subdivision Ordinance shall consider making provision for the review of preservation of visual resources in new subdivision applications. Prior to construction, developers should be obligated to show the potential impacts of the development on the areas visual resources. The developer should also provide natural visual buffers between adjacent developments when feasible.

In addition, enforcement of existing building regulations will help ensure that structures are built in appropriate places.

Air, Light, And Noise Pollution

Public Education

It would be useful to inform residents of changing technologies and offer incentives for improved air pollution control systems, as well as placing controls on major industrial pollution point sources. The County should provide incentives for change and encourage EMA residents to educate one another about potential pollution reducing technologies and techniques, and a local economic sector vending appropriate products should be encouraged to develop. Population growth and distribution, air circulation patterns, and pollutant concentrations should be monitored in order to determine how location and type of development will affect the East Mountain Area's airshed. Such an approach will safeguard air quality by guiding development and residents to be more respectful of the environment.

Auto Emissions

Air quality is preserved by keeping motor vehicle traffic minimal and engine emissions low, or by dispersing pollutants into a larger volume of air, thereby reducing concentration of air pollution. Reduction of emissions can be accomplished by limiting the number of vehicles or dispersion units in an area, by mechanical improvements, by intensive education of the public along with incentives for change, and by applying enforceable standards and controls on their maintenance and use.

Scale of Roadways

A hierarchy of roads has been developed to serve various traffic volumes, while generally keeping roadways at a reduced scale. Scale of roadways should be minimized to prevent pollution, to discourage high traffic volumes, encourage non-motorized uses and to retain the rural character of the area (particularly valuable to both residents, tourists and the real estate community). Road “improvements” should be planned with the surrounding countryside in mind. A network of “scenic routes” intended to display and complement the natural environment should be designated. Locally owned public transportation (on-call and scheduled “minibuses”) should be established to discourage automobile travel to central commercial points.

Alternate Transportation

Facilities for walking, bicycling, and horseback riding for recreation should be provided, thereby reducing the need for travel by automobile (Refer to the *Trails* section). Trails along roads should be unpaved for multiuse where convenient. Trails should be sensitively designed to fit in with the natural environment. Bikeways should be created on roads where wide shoulders can be accommodated. The East Mountains Bikeways and Trails Master Plan outlines the options for trails and bikeways and should be used to guide new trail development

Atmospheric Circulation

Sources of pollution can take advantage of prevailing winds and breezes, if related drainageways are left unobstructed so that there is a free flow of air movement.

Dust Control

Construction sites should be required to have top soil disturbance permits and dust control plans, and other paving or gravel surfacing of dirt roads in order to reduce dust from these sources without greatly increasing the traffic speeds or runoff. Materials and construction methodologies are available for sensitively preparing unpaved roads, including appropriate landscaping along roadsides that prevent dust from reaching adjacent buildings, etc

To achieve air quality goals to reduce dust from unpaved roads and construction sites, fugitive dust associated with unpaved roads on public rights of way, construction activity, and other dust-producing activities should be addressed as defined by the Albuquerque/Bernalillo County Air Quality Control Board Fugitive Dust Control regulations. Strategies to reduce fugitive dust include paving, application of hygroscopic materials, as well as non-toxic chemical stabilizers. A Fugitive Dust Control permit must be acquired from the Albuquerque Environmental Health Department.

Landscaping

Bare areas and green-belts should be landscaped with native plants and native vegetation should be preserved in areas not under active construction to reduce dust.

Buffer Zones

Buffer zones minimize adverse impacts of pollutants on a specific area by reduction of human exposure to the pollution source. Areas most sensitive to air pollution are schools, playgrounds, residential areas, and places where people congregate. Vegetative buffer zones should be established to (“green-belts”) reduce the impact of air, noise, and dust pollution and contribute to the highly valued characteristics of privacy and isolation. One proactive way for developers to reduce noise is to provide a vegetative buffer between streets and houses. This buffer of native species would also provide privacy and improve the views along designated streets

Wood-burning Emissions

All new construction should use more environmentally sensitive wood stoves and incentives should be in place for replacement of older wood-stoves to begin reducing emissions caused by the uncontrolled burning of wood. The supply of environmentally effective materials and equipment by a local industry should be encouraged.

Soils, Vegetation, And Topography

Bernalillo County Public Works Division shall require all future subdivisions in the East Mountain Area to submit an Erosion and Sediment Plan (during and after construction) for review and approval. Use of xeriscaping and natural vegetation shall be encouraged.

Bernalillo County shall establish an ordinance to require the use of native plant material and xeriscape principles.

Community Development

RESIDENTIAL DEVELOPMENT – 8

Existing standards and procedures for development approval should be re-examined. The commercial and residential development approval process must be rigorous in order to ensure that critical issues (such as those presented in the Existing Conditions section) are addressed. Water availability, fire mitigation plans, and rural preservation must be the primary criteria for approving all new development. Without these precautions, over-development will occur, directly impacting water and fire, the two most potentially catastrophic issues. The development review process should require that development proposals not harm the area or ensure steps to